

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Previously presented) A process according to claim 8, wherein said etching medium is a paste which comprises
 - a. at least one solvent
 - b. thickeners and optionally
 - c. additivesand wherein said medium is effective at temperatures from 70 to 150°C and/or can be activated by the input of energy and said etching paste is printable.
3. (Cancelled)
4. (Previously presented) A process according to claim 8, wherein said etching component is sodium hydroxide, potassium hydroxide, ammonia, ethanolamine, ethylenediamine, tetraalkylammonium hydroxide or one of the ethylenediamine/ pyrocatechol or ethanolamine/gallic acid mixtures.
5. (Cancelled)
6. (Currently amended) An etching medium according to Claim 2, wherein said thickener is hydroxyalkylguar, xanthan gum, cellulose and/or ethyl hydroxypropyl or hydroxyethylcellulose, ~~carboxymethylcellulose~~, sodium carboxymethylhydroxyethylcellulose, homopolymers or copolymers based on functionalised vinyl units of acrylic acid, acrylates or alkyl methacrylates (C₁₀-C₃₀), individually or in a mixture in an amount of from 0.5 to 25% by weight, based on the total amount of the etching medium.
7. (Previously presented) A process according to Claim 2, wherein said additive is a thixotropic agent, a flow-control agent, a deaerator or an

adhesion promoter in an amount of from 0 to 2% by weight, based on the total amount.

8. (Currently amended) A process for the etching of silicon surfaces and layers comprising applying a printable thickened, alkaline liquid etching medium over the entire surface area of said surface or layer or in accordance with ~~the~~ an etch structure mask specifically only to the areas of the surface where etching is desired

and removing said medium after an exposure time of from 30 s to 5 min.

wherein said etching medium acts at a temperature in the range from 70 to 150°C and/or, is activated by the input of energy

and wherein said etching medium comprises

(a) an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium

and

(b) from 10-90 % by weight, based on the total amount of said etching medium, of a solvent which is a mixture of water and at least one other solvent that is isopropanol, diethylene glycol, dipropylene glycol, polyethylene glycols, 1,2-propanediol, 1,4-butanediol, 1,3-butanediol, glycerol, 1,5 pentanediol, 2-ethyl-1-hexanol, acetophenone, methyl-2-hexanone, 2-octanone, 4-hydroxy-4-methyl-2-pentanone, 1-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether, triethylene glycol monomethyl ether, diethylene glycol monobutyl ether, dipropylene glycol monomethyl ether, or a carboxylic acid ester.

9. (Cancelled)

10. (Currently amended) A process according to Claim 9 ~~8~~, wherein said etching medium is activated by exposure to heat.

11. (Currently amended) A process according to Claim 8, wherein said etching medium is applied to the surface to be etched by ~~a screen~~, template, pad, stamp, ink-jet or manual printing process or by a dispensing technique.

12. (Previously presented) A process according to Claim 8, wherein said etching medium is rinsed off using a solvent or solvent mixture when the etching is complete.

13. (Cancelled)

14. (Currently amended) A method for etching of silicon surfaces and layers for isolation of the pn transition in solar cells comprising applying a printable thickened, alkaline liquid etching medium to the surface of said silicon or a layer for isolation of the pn transition in a solar cell

and

wherein said etching medium comprises

(a) an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium

and

(b) from 10-90 % by weight, based on the total amount of said etching medium, of a solvent which is a mixture of water and at least one other solvent that is isopropanol, diethylene glycol, dipropylene glycol, polyethylene glycols, 1,2-propanediol, 1,4-butanediol, 1,3-butanediol, glycerol, 1,5 pentanediol, 2-ethyl-1-hexanol, acetophenone, methyl-2-hexanone, 2-octanone, 4-hydroxy-4-methyl-2-pentanone, 1-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether, triethylene glycol monomethyl ether, diethylene

glycol monobutyl ether, dipropylene glycol monomethyl ether, or a carboxylic acid ester.

15. (Cancelled)

16. (Currently amended) A method for etching of silicon surfaces and layers of solar cells for improving the antireflection behaviour comprising applying a printable thickened, alkaline liquid etching medium to the surface of said silicon or layer of a solar cell for improving the antireflection behaviour and wherein said etching medium comprises:

(a) an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium

and

(b) from 10-90 % by weight, based on the total amount of said etching medium, of a solvent which is a mixture of water and at least one other solvent that is isopropanol, diethylene glycol, dipropylene glycol, polyethylene glycols, 1,2-propanediol, 1,4-butanediol, 1,3-butanediol, glycerol, 1,5 pentanediol, 2-ethyl-1-hexanol, acetophenone, methyl-2-hexanone, 2-octanone, 4-hydroxy-4-methyl-2-pentanone, 1-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether, triethylene glycol monomethyl ether, diethylene glycol monobutyl ether, dipropylene glycol monomethyl ether, or a carboxylic acid ester.

17. (Withdrawn-Currently amended) A method for etching of silicon surfaces and layers in a process for the production of semiconductor components and circuits thereof comprising applying an etching medium according to claim 4 8 to the surface of said silicon or layer in a process for the production of a semiconductor component and circuit thereof.

18. (Withdrawn-Currently amended) A method for etching of silicon surfaces and layers in a process for the production of components in high-performance electronics comprising applying an etching medium according to claim 4 8 to the surface of said silicon or a layer in a process for the production of a component in high-performance electronics.

19. (Currently amended) A process according to claim 5 8, wherein said solvent is from 15 to 85% by weight based on the total amount of the medium.

20. (Currently amended) A process according to claim 5 8, wherein said carboxylic acid ester is [2,2-butoxy(ethoxy)]ethyl acetate or propylene carbonate.

21. (Currently amended) A process according to claim 5 2, wherein said additive is an antifoaming agent, a thixotropic agent, a flow-control agent, a deaerator or an adhesion promoter.

22. (Previously presented) A process according to claim 8, wherein said organic or inorganic base has a concentration of from 10-45 % by weight, based on the total amount.

23. (Previously presented) A process according to claim 6, wherein said thickener is from 1 to 10% by weight, based on the total amount of the etching medium.

24. (Previously presented) A process according to claim 8, wherein said etching medium comprises an organic or inorganic base having a concentration of from 10-45 % by weight, based on the total amount of said etching medium.

25. (Previously presented) A process according to claim 8, wherein said alkaline etching medium comprises an organic or inorganic base having a concentration of from 30-40 % by weight, based on the total amount of said etching medium.

26. (Previously presented) A process according to claim 8, wherein said alkaline etching medium comprises a thickener from 0.5 to 25% by weight, based on the total amount of said etching medium.

27. (Previously presented) A process according to claim 24, wherein said etching medium comprises

- a. 15 to 85% by weight of at least one solvent
- b. from 0.5 to 25% by weight of a thickener and optionally
- c. additives

and wherein said medium forms a paste that is effective for etching at a temperature of from 70 to 150°C and/or can be activated by the input of energy, and said etching paste is printable.

28. (Previously presented) A process according to claim 10, wherein said source of heat is an IR lamp or a hotplate.